APPENDICES

SECTION 14. EROSION AND SEDIMENTATION CONTROL

14.A Introductory Narrative

Transmission lines are somewhat unique in that while they may span considerable distances, their overall potential for producing significant erosion and sedimentation is generally small and will be limited to certain areas of the project for relatively short periods of time. The great majority of the proposed construction activity involves clearing overstory vegetation which, if carefully controlled, can be completed with only minimal disturbance to the soils and runoff characteristics of the area. The potential for erosion associated with the proposed Northeast Reliability Interconnect (NRI) is, therefore, a function of the soil characteristics, existing vegetation and the specific construction activity taking place in an area.

There are no known existing erosion problems along the proposed transmission line or at the Orrington Substation. Section 11, Soils, includes tabulation for each soil map unit expected to be encountered, its characteristics, and a discussion of the erosion hazard potential and erosion susceptibilities (K-factor). In addition, all components of the NRI, including access roads, were sited to avoid critical areas and protected natural resources to the extent practicable. Protected natural resources and other environmentally sensitive areas have been identified in the field, located on the project Plan and Profile drawings and are discussed in detail in other sections of this application.

As requested by the Maine Department of Environmental Protection (DEP) at the NRI pre-application meeting, Bangor Hydro-Electric Company (BHE) has prepared the Northeast Reliability Interconnect Project Erosion and Sedimentation Control Plan (the NRI E&S Plan or Plan) to be a stand-alone document containing all erosion and sedimentation control requirements related to the project. The NRI E&S Plan, provided in Appendix 14-1, contains measures to be used to control erosion during construction of the transmission line and Orrington Substation modifications, and the stabilization requirements to be implemented immediately following completion of construction in an area. The NRI E&S Plan is based on DEP's *Maine*

Erosion and Sediment Control BMPs, dated March 2003, and the practical application of the Best Management Practices (BMPs) adapted by BHE for construction in utility corridors.

14.B NRI E&S Plan

The goal of the NRI E&S Plan is to provide BHE contractors, environmental inspectors and agency inspectors with a single, cohesive set of erosion control specifications for the NRI. The document is designed to provide specifications for the installation and implementation of soil erosion and sedimentation control measures while allowing adequate flexibility to allow application of the most appropriate measures based on site-specific conditions. During construction, and continuing until all disturbed areas are properly restored and stabilized following construction, the contractor(s) will adhere to the details and specifications contained in the Plan. Drainage devices, waterway crossings, access roads and erosion control features will be inspected weekly during construction, as well as promptly after each period of significant rain or snow runoff, and any damage will be repaired. Accumulated silt, broken branches and other debris which interferes with drainage or sediment collection will be removed. BHE personnel or their designated representatives will ensure that the procedures are followed by regularly inspecting all work and prescribing corrective steps to be taken where necessary.

Typical erosion control measures provided for in the NRI E&S Plan include a variety of non-structural measures including temporary mulching and seeding; permanent mulching and seeding; dormant seeding and winter mulching; temporary check dams (haybale and stone); silt fence, hay bale or erosion control mix erosion control barriers; and use of temporary timber mats/bridges. To further minimize wetland impacts and avoid causing erosion and sedimentation, BHE is proposing winter construction for all work in saturated and inundated wetlands, following winter construction BMPs during frozen ground conditions.

Additionally, the NRI E&S Plan provides a construction sequence showing the implementation schedule for installing erosion control measures prior to significant soil disturbance and the timing requirements for site restoration and final stabilization along the right-of-way (ROW) and

at the Orrington Substation. The Plan also provides for a Third Party Inspection Program, the details of which will be developed in consultation with the Department and included in the Plan.

The majority of the erosion control measures for the transmission line will consist of standard hay bale dikes and/or silt fence protection along the down-gradient boundary of the work if it is uphill of wetlands and waterbodies. The specific locations of these control measures will be determined in the field during a site walkover prior to construction and in the field during construction. In addition, any waterbodies or wetlands near a structure installation site will be protected in the same manner. No structures will be located and no earth work other than that necessary to install a temporary equipment crossing will occur within the 25-foot or wider buffer zones established for all waterbodies crossed by the project. Erosion control measures will be installed prior to the start of work at any structure site. It is important to note that the time required to install a structure is only a matter of hours, therefore, the duration of activity provides little opportunity for significant erosion to occur.

Construction at the Orrington Substation will require clearing, excavation and grading, and therefore the potential for erosion is greater when compared to transmission line construction. In addition to the non-structural measures used along the transmission line (mentioned above), the substation will use structural measures to control erosion. Section 12 of this application, Stormwater Management, contains the details and calculations used to determine the design of temporary and permanent surface runoff measures that will control erosion as well as manage stormwater at the substation. Pre- and post-construction contours, the location of construction work limits, and location and type of all erosion control and site stabilization measures to be used at the Orrington Substation are included on the site specific drawings located in Appendix D of the NRI E&S Plan.

APPENDIX 14-1

NRI EROSION & SEDIMENTATION CONTROL PLAN